Calculate your stocking rate.

Once you know your animals’ requirements, and your land’s production, it is easy to estimate how much forage you have available for your livestock.

You will need the following numbers:

- **Pasture Size** __________ acres
- **Pasture Production** _________ lbs/acre
- **Animal Requirements** ________ lb/day

**Example**

Assumptions:
- 30 acres Big Horn Basin native range
- 5-9 inch precip zone
- Loamy range site
- Perennial Grass - Big Sagebrush community

Predicted plant production:
- Favorable precip year = 480 lbs/acre
- Average precip year = 320 lbs/acre
- Poor precip year = 180 lbs/acre

1,200lb horse will eat 36lbs of dry matter/day

In an average year this pasture will produce 9,600lbs of forage. (320lbs/acre x 30 acres)

Half of this must be left in place to keep the plants healthy, and 15% will be lost to other grazers (deer, antelope, rabbits, mice, etc.). So only 35% of this is available to domestic animals.

This pasture has 3,360 lbs of available forage (9,600lbs x .35) and can support **one 1,200lb horse for 93 days** (3,360 lbs / 36lbs/day) or **three 1,200lb horses for 31 days** (3,360 lbs / 108lbs/day).

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What is Overgrazed?

Overgrazed is the term used to indicate a degraded condition and composition of the plant community as a result of grazing impact. Specific indicators of an overgrazed pasture include lack of vegetation, or a shift in types of plants away from those desirable to livestock, weed infestations, compacted soil, stunted plants, reduced plant health, excess runoff and erosion, bare soil, and lack of organic matter.

Natural Resource Problems with Overgrazing

**Soil:** Overgrazing causes reduced soil fertility rates and low soil infiltration rates. These problems are indicated by excess runoff, erosion, hard and dry soil.

**Water:** Overgrazing can contribute to water pollution because of increased runoff carrying manure and sediment, and hungry animals spending more time in higher forage producing areas near streams and reservoirs (increasing the likelihood of fecal contamination).

**Air:** Overgrazing reduces plant cover which can cause air pollution in the form of dust storms.

**Plants:** Desirable plants in an overgrazed pasture will be negatively impacted. Plants with a higher relative forage value, or those that are palatable to livestock will be grazed more intensively. This will make them less competitive against low quality forage plants and noxious weeds.

How much does your livestock eat every day?

- Forage required by an animal is commonly measured in Animal Units or an AU. It is a way to compare different animals and their feed requirements.
- One mature pleasure horse will eat approximately 35lbs of grass or hay per day (1.25 AU).
- A 1,000 lb cow not lactating will require approximately 25 pounds of grass or hay per day (1.00 AU).
- A mature ewe or doe goat will eat 4-5 pounds of grass or hay per day (0.2 AU).
- Alpaca requirements are similar to those of sheep.

During winter months, or whenever forage quality is decreased, supplemental feed is required. This may be in the form of a complete feed, a grain, or a protein supplement. Replacement feed in the form of hay, may also be required if there is insufficient forage available.

The next page has an example of what a production table looks like for the Big Horn Basin 5”-9” annual precipitation zone, on loamy soil.